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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,534	04/27/2006	Henry J. Knott	990029.00003	9594
26710 7590 10/16/2008 QUARLES & BRADY LLP 411 E. WISCONSIN AVENUE SUITE 2040 MILWAUKEE, WI 53202-4497				
EXAMINER				
GARCIA, ERNESTO				
ART UNIT		PAPER NUMBER		
3679				
MAIL DATE		DELIVERY MODE		
10/16/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/577,534

**Applicant(s)**

KNOTT, HENRY J.

**Examiner**

ERNESTO GARCIA

**Art Unit**

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2008 and 21 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Paper No(s)/Mail Date. \_\_\_\_\_
- 6) ☐ Notice of Informal Patent Application
- 7) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Election of Species***

Applicant requests that the restriction requirement be reviewed in view of the corrected figure descriptions. In response, the examiner has noted the errors applicant made in the original specification and the corrections recently submitted. The examiner is withdrawing the restriction requirement.

### ***Drawings***

The drawings filed on March 21, 2008 are accepted.

### ***Specification***

The disclosure is objected to because of the following informalities:  
the description of reference character "14a" is inconsistent in paragraphs [004] and [005]. Appropriate correction is required. Further, the description to reference

"14a" as "a side" does not correspond to the drawings since reference character 14a does not point to a side of the fastener shank.

***Claim Rejections - 35 USC § 112***

Claims 1, 2, 4, and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the metes and bounds of the claim is unclear. The claim sets forth a joint between at least two parts clamped by fastener having a shank in tension and including surfaces yet the limitation "when the fastener is assembled to the joint", in line 4, makes unclear what the claim sets forth when the fastener is already assembled as recited in lines 1-2. It should be noted that patentability is based on the structural differences and not what the joint does or how the joint operates. Further, it is unclear how the surfaces themselves induce bending stress?

Regarding claim 4, the recitation "bending stresses induced by the maximum application load" in line 5 makes unclear whether these stresses are different than the bending stress induced in the plane of bending by the maximum application load as recited in claim 1, lines 6-7, or the bending stress recited in claim 1, lines 6-7, is part of these "stresses".

Regarding claim 8, the recitation "a connecting rod joint" in line 3 makes unclear whether this is another joint than the joint between the at least two parts as defined in claim 1, line 1, or the same joint.

Regarding claim 2, the claim depends from claim 1 and therefore is indefinite.

***Claim Rejections - 35 USC § 102***

Claims 1, 2, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by applicant's admitted prior art.

Regarding claim 1, as best understood, the applicant discloses, see Figure 3, an improvement comprising a joint including surfaces **36, 37, 40** (lower portion) inducing a bending stress in a shank **11** of a fastener **10** [0004] in a plane of bending. The bending stress is substantially inversely proportional to a bending stress induced by a maximum application load (note that radial forces on surface **40**, especially at the lower portion of surface **40**, are transferred to surfaces **36, 37** thus causing the bolt to undergo bending stress as well as axial stress).

Regarding claim 2, the bending stress induced by the surfaces **39, 40** is of a magnitude and direction.

Regarding claim 8, the two parts include a bearing cap **42** and a rod **44**. The bearing cap **42** is connected to the rod **44**.

***Claim Rejections - 35 USC § 103***

Claims 3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomson et al., 6,309,135.

Regarding claims 3 and 5-7, these two additional species are obvious variants since the species contain minor differences which do not make the respective species patentably distinct over one another. In particular, one skilled in the art would have found it to have been obvious to change the seat to be angled or make the bolt and its threaded hole angled to allow the fastener to be tightened with less likelihood of binding as outer portions of the clamp members engage the object and tend to rotate. It would have been obvious to one of ordinary skill in the art to change the angle of the seat or that of the bolt and its thread hole to allow the fastener of Thomson et al. to be tightened with less likelihood of binding as outer portions of the clamp members engage the object and tend to rotate and because these alternatives are obvious variations.

***Response to Arguments***

Applicants' arguments filed June 30, 2008 have been fully considered but they are not persuasive.

With respect to the admitted prior art, applicant argues that the examiner is referring to Figure 4 as opposed to Figure 3. In response, the examiner was relying on the description of the original specification, which applicant has indicated is incorrect. The applicant remarks that the joint seat 36 in Figure 3 is not at an angle. In response, the examiner has acknowledged this remark and relies on the surfaces 36, 37, and 40 for the surfaces that induce bending stress as explained in the rejection. Applicant should note that the crankshaft that fits in the hole creates forces that are radial and tangential to the hole.

With respect to Thomson et al., applicant argues that the canting feature "is to 'allow the fasteners to be tightened with less likelihood of binding as outer portions of the clamp members engage the object and tend to rotate'". In response, applicant should note that patentability is based on the structural differences and now what the joint does or how the joint operates. According to Thomson et al., the same structural features are found as claimed and thus inherently have the capability as claimed since Thompson et al. teach an assembled joint. Obviously, the bending stress will be present since the two parts are connected.

With respect to claim 8, applicant argues that the object clamp, in Thomson et al., is clearly not a connecting rod joint having a bearing cap and rod as called for. In response, there's nothing in the claim that distinguishes over the bearing cap and the rod. The claim does not structurally define what the bearing cap and the rod comprise of. This claim has been given the broadest reasonable interpretation since the components in Thompson et al. are considered a bearing cap and a rod.

### ***Conclusion***

The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Thomson et al., 6,309,135, show a similar joint.

The rejection of the previously withdrawn claims was necessitated by applicant's correction of what subject matter was being admitted to be prior art and what subject matter was actually not prior art and the withdrawal of the election requirement as a result.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 571-272-7083. The examiner can normally be reached from 9:30AM-6:00PM. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached at 571-272-7087.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/E. G./

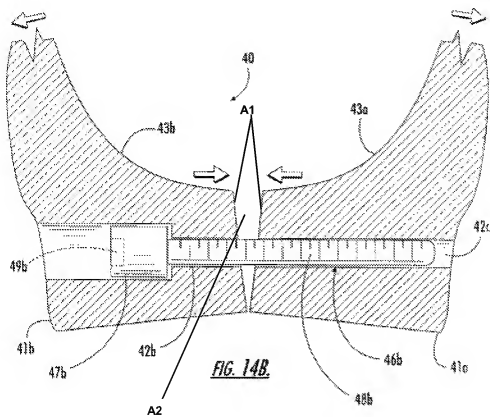
Examiner, Art Unit 3679

October 19, 2008

Attachments: one marked-up page of Thomson et al., 6,309,135  
one marked-up page of Hekman, 4,860,419

/Daniel P. Stodola/  
Supervisory Patent Examiner, Art Unit 3679

Thomson et al., 6,309,135



Hekman, 4,860,419

